Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Proposed Changes in the Commissions Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields	)	ET Docket 03-137

COMMENTS OF ITI

The Information Technology Industry Council (ITI) hereby submits comments in response to the Commission's Notice of Proposed Rule Making ("NPRM").[1] ITI represents the top U.S. providers of information technology (IT) products and services. ITI is the voice of the high-tech community, advocating policies that advance U.S. leadership in technology and innovation, open access to new and emerging markets, support e-commerce expansion, protect consumer choice, and enhance the global competitiveness of its member companies.

ITI welcomes this opportunity to provide comments on these matters that are critically important to the entire information technology sector. ITI and its member companies would like to thank the Federal Communications Commission (the Commission) for its continued interest in and leadership on these issues of public safety. ITI also would like

[1]."Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields," NPRM Released June 26, 2003, FCC 03-132 in ET Docket 03-137

to state clearly and forcefully that, like the Commission, we are concerned above all else with the safety of the general public as consumers of our products. ITI and its member companies are interested in and attentive to these safety issues as responsible corporate citizens who value their customers. Simply stated, it is in the interest of our industry and its individual companies to ensure public safety with our products. To that end, we are confident that our comments in response to this NPRM provide the Commission with recommendations to improve its processes with no reduction in public safety.

Background

The Commission has been involved with human exposure issues for many years, beginning almost three decades ago with the adoption of basic guidelines to protect workers and the general public.

The 1969 National Environmental Policy Act (NEPA) required U.S. government agencies to evaluate the effects of their actions on the quality of the human environment. The Commission continues at the forefront of the RF exposure issue and has previously addressed it in earlier rule makings.[2] The Commission has been at the forefront of establishing mandatory measurement practices and limits regarding public exposure to RF radiation. It has addressed the RF radiation issue through several guidelines developed to answer basic consumer questions[3] and others to help the industry evaluate

[2] See ET Docket 93-62 Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation and the 1997 Second Memorandum and Opinion.

[3] OET Guide 56

their RF devices to the applicable RF levels established.[4] The requirements for RF radiation were also addressed not only in Part 1 and Part 2 of the Commission's rules but also in several of the specific radio sections, such as Part 15, Part 24, Part 90, and Part 101. Like the Commission, industry also has been active in development of both test methodologies [5] and testing equipment, including the composition of the material matter to simulate human tissue for measurement purposes.

With the mandatory requirement to meet international standards for RF exposure as well as provide guidelines for use of various wireless products from low power handheld radios to high power base stations, ITI believes that this rule making can play a critical role in continuing to maintain the public safety and awareness of RF exposure and continuing to establish the safe usage of RF products.

Part A: Routine Evaluation and Categorical Exclusion of Transmitters, Facilities and Operations

ITI supports the requirements for requiring routine examination of certain devices based on a combination of factors, including their transmitter power, antenna gain, frequency, and proximity to the user. ITI maintains that the requirement for routine evaluation ensures safer RF systems and operating requirements. In addition, ITI supports the concept that certain systems be categorically excluded from routine examination to this requirement. In fact, in nearly all circumstances, Part 15 devices were categorically excluded by the rules and the evaluation to demonstrate compliance should have been

[4] OET Guide 65, with supplements A, B, and C

[5] Standards such as the IEEE Standard 1528, ANSI C95.1, equivalent ETSI and International RF Hazard Standards have been co-developed in joint efforts between industry and government regulators.

relatively simple, in a majority of cases under current regulations and interpretations it was not.

In reviewing the proposed changes, ITI agrees with the proposal that categorically excludes low power transmitters operating greater than 20cm away from the user, as outlined in the NPRM and OET 65C. This categorical exclusion from routine examination is in line with the requirements in OET 65 C (01-01) for low power devices.

Part B: Requirements for Evaluating SAR for Certain Section Part 15.247 Unlicensed Devices.

Regarding Paragraphs 17 and 18, ITI commends the Commission for addressing Part 15.247 spread spectrum and digital transmission systems. As the Commission is aware, numerous products operate under this specific rule, including cordless phones, Bluetooth and 802.11 (b/g) RLAN devices. ITI and its members as manufacturers of 802.11 devices are concerned that the 802.11(a) devices under Part 15.407 are not included. In addition, to date a number of Part 15.247 and Part 15.407 devices are on the market operating in the 5 GHz range. ITI believes there are enough devices on the market to begin the data analysis necessary to determine appropriate interim thresholds and exclusion levels for these RF devices. ITI encourages the Commission to work in partnership with industry to undertake additional research in order to determine appropriate limits. ITI and its member companies are interested in collaborating with the Commission to design and undertake this important research.

Proposed Revision C: RF Evaluation Requirements for Transmitter Modules

Regarding paragraphs 19 and 20, ITI supports the Commission's view that a 100mW Part 15 device will not exceed the 1.6W/ Kg level as stated in the NPRM. Therefore we support allowing the exemption from routine testing and filing of data for Part 15.247 devices operating at, or below 100mW EIRP. We also support a SAR exemption for modular transmitters operating at or under 100mW EIRP. Industry respectfully maintains that the 100mW EIRP exemption should apply to modular transmitters irrespective of the end host in which they ultimately are located.

Regarding paragraph 21, ITI suggests that no additional SAR testing is necessary when an antenna is substituted with one of the same type and gain. For those devices requiring SAR testing, specifically those that exceed 100mW EIRP, ITI recommends limited modular approval, which can be achieved by performing testing with the module embedded in three different but similar devices. We recommend testing once as a submittal where at least one device must be representative of the typical worst-case condition. ITI suggests that by taking this step, the FCC can eliminate unnecessary, redundant testing that provides no demonstrable additional safety benefit. ITI is confident that this streamlined approach continues to provide maximum safety to consumers while at the same time providing them quality products at a lower cost.

Furthermore, with regard to paragraph 21 information included in installation instructions, ITI and its member companies fully support the FCC in it efforts to ensure that the public receives accurate and effective information. We believe that one issue not yet addressed is 15.247 (b)(5), which states that the following:

Systems operating under this provision of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commissions guidelines.

This protection is in part achieved through specific warnings and operational instructions in the product manuals. One issue that presents manufacturers with an unnecessary challenge is that there is not a generic set of instructions from the FCC on what statements to provide. The result is manuals for the same radio may have substantially different warnings based on the interpretation of an individual TCB or FCC reviewer's of the correct wording to comply with 15.247(b)(5). ITI therefore urges the Commission to adopt basic guidelines or instructions for such advisories in order to achieve consistent wording for all products at the same power levels.

ITI believes that the various thresholds for exclusion for Part 15.247 devices in different devices will in fact create more confusion for the TCB's as well as for the manufacturers. Since a manufacturer does not know where his module will be installed, he will not know how to address the product for SAR compliance.

As an example, regarding modules that may be added to the keyboard section of a laptop computer (paragraph 26), ITI respectfully maintains that while the 10 mW limit is safe for some device types, it is overly cautious for others. ITI urges that product types be separated in these regards where appropriate and practicable. For example, as outlined in paragraph 18, ITI believes that 802.11 modules may be able to operate at a radiated power of up to 100 mW EIRP (in some cases even higher) without danger of exceeding the limits that are set for consumer devices.

Regarding paragraphs 28 through 30, ITI and its members who manufacture PDAs and laptops request the flexibility to use a lower gain antenna at a higher power level.

ITI believes that based on the current industry data on file at the Commission, the exclusion threshold for 2.4 GHz WLAN devices can be 100 mW EIRP, and the exclusion application should not be tied to any particular type of end host device or location in the device. Furthermore, we encourage the FCC and industry to conduct further analysis of WLAN modules performance operating at 5 GHz, to derive a safe and practical exclusion threshold for 5 GHz WLAN modules and devices as well.

In addition, ITI would like to commend the Commission for soliciting input on its approach to PDAs and for its desire to adopt a reasonable one. To that end, we would emphasize to the Commission the importance of its rules and proceedings being technologically robust and not tied to a specific current product or technology configuration. For example, we suggest that the Commission begin to consider these devices as handheld computers, and not PDAs.

Proposed Revision D: Measurement of SAR from Multiple Transmitters

Regarding paragraphs 31 and 32, ITI maintains that the evaluation configuration adopted must be representative of actual usage. More specifically, ITI would like to confirm the Commission's supposition that it may be appropriate and practicable with present SAR measurement systems to sum the SAR values at individual evaluation grid points prior to

computing the 1g average SAR. We believe that further evaluation and analysis is needed to derive a measurement profile that is truly representative of the SAR values. Simply summing the 1g SAR values of each transmitter may not always accomplish that critical objective. In addition, ITI respectfully requests that the FCC continue to take all steps possible to align their measurement process with international limits (ICNIRP) which averages into 10g of tissue for SAR.

Additional Comments:

ITI is interested at this point in raising two additional issues related to, but not directly presented in, this NPRM. Our intent in raising these additional comments is to begin a dialogue with the Commission on two important matters.

Additional Issue One: ITI has observed the potential for misunderstandings regarding the field levels generated by new wireless devices such as WLAN and the potential health effects on users and others exposed to their RF emissions.

We would like to take this opportunity to make the FCC aware that a number of companies are investigating the possibility of conducting a comprehensive exposure assessment involving multiple wireless devices to provide additional data on the fields present in public wireless LAN venues. The intent of this assessment is to alleviate any potential public misunderstandings on the nature of the RF emissions from these devices.

ITI respectfully suggest that the Commission seriously consider its potential involvement in the proposed assessment (e.g., the Commission may want an opportunity to comment on the proposed scope, process, and nature of the study and/or publicly disseminate the results of the study once completed).

Additional Issue Two

ITI would like to recommend that the Commission consider a Supplier's Declaration of Conformity (SDoC) process for regulatory approval of the lowest power Part 15 devices as an alternative to its current certification process. It should not be necessary to apply the same regulatory rigor to low-power wireless devices as is used for high power devices. ITI believes that exclusive reliance on certification for regulatory approval is unnecessarily burdensome for the lowest power wireless devices, and provides no additional benefit to the public.

An SDoC process would also be in the public interest because it would lower the cost of products for consumers. Adoption of an SDoC approval regime for low-power wireless devices would also harmonize the U.S. with approval methods of other countries In this regard; ITI would like to point out that an effective SDoC process is currently in use by the European Union under its R&TTE directive